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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,166	01/20/2004	Mehmet A. Gencer	NTICPO107A	4617

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HUDAK, SHUNK & FARINE, CO., L.P.A.
2020 FRONT STREET
SUITE 307
CUYAHOGA FALLS, OH 44221

EXAMINER

SANDERS, KRIELLION ANTIONETTE

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/761,166

Applicant(s)

GENCER ET AL.

Examiner

Kriellion A. Sanders

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/04, 1/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Double Patenting

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Claims 1-11 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-11 of copending Application No. 10/844838. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-11 are provisionally rejected on the ground of nonstatutory double patenting over claims 1-13 and 15-25 of copending Application No. 10/347,661. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: Each application includes a process for infusing an alkali metal nitrite either alone or in combination with an organic compound into a resinous material.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 112 2nd Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. In the next to the last line of claim 1, the phrase "infused crystals being in an amount less than 2% by weight is indefinite in that it does not indicate the unit of measurement which this weight percentage is based upon. It is not clear whether this measurement is based upon the weight of synthetic resin or the original weight percent of alkali metal nitrite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perman et al, US Patent No. 5508060, Berens et al, 4,820,752 in view of, Deck, US Patent No. 4,491,526 and Perman et al, US Patent No. 5,340,614.

1. Applicant's invention pertains to a process for infusing an alkali metal nitrite into a resinous material by depositing alkali metal nitrite crystals in a pressure vessel and pressurizing with carbon dioxide under supercritical conditions, contacting a resinous material with the alkali metal nitrite/carbon dioxide mixture and decreasing pressure, temperature or both to separate the carbon dioxide from the resinous material while leaving the alkali metal nitrite in the polymer. The claims also pertain to a process as set forth above that additionally includes a second fluid.

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Additionally, claims 9-11 relate to a two stage process for infusing alkali metal nitrite and an organic material into a resinous material

2. It is well known in the art that resinous materials may be infused with an additive by using a compressed or supercritical fluid as carrier for that additive, as is documented by Perman et al, US Patent No. 5508060 and Berens.

3. Perman et al discloses a method for impregnating a polymeric material with an additive by contacting said polymeric material with said additive and a carrier liquid in a pressure vessel to swell the polymeric material until liquid and additive penetrate the polymeric material and releasing the pressure in the pressure vessel so that the carrier liquid diffuses out of the polymeric material, leaving the additive impregnated therein. See col. 2, lines 29-67. A suitable super critical fluid includes carbon dioxide. Other fluids including carbon dioxide are listed at col. 5, lines 15-47. Patentee indicates that any element capable of being impregnated into the polymer may be used as the additive in the invention. See col. 6, line 59 through col. 7, line 24.

4. Berens discloses that typical supercritical fluids include carbon dioxide and nitrous oxide and typical additives include antioxidants and accelerators or any material small enough to have a molecular size small enough to allow it to be absorbed into the swollen polymer. This description of suitable additives would include any of the components listed in Perman et al '060 and would also include corrosion inhibitors. The invention of Berens et al differs from applicant's invention in that it does not specifically list alkali metal nitrites as suitable additives that may be used in the invention. However it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to utilize any material small enough to have a molecular size small enough to allow it to be absorbed into the swollen polymer as an additive.

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This would include alkali metal nitrites that meet this criteria. Likewise, it would have been obvious to use any other additive such as an antioxidant small enough to have a molecular size small enough to allow it to be absorbed into the swollen polymer. See Berens et al at col. 5, line 4 through col. 6, line 29.

5. Deck teaches the alkali metal nitrites to be conventional corrosion inhibitors. See col. 8, lines 27-37.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate or infuse any additive that is small enough to have a molecular size small enough to allow it to be absorbed into the swollen polymer, into a polymer matrix by the method described by Berens et al, absent a clear showing of unexpected results attributable to the specific additive employed.

Berens et al '614 provides a method for infusing additives into polymeric matrices. Berens et al further indicates that the nature of the additive is not critical and provides clear cut guidelines to select the additives which would be appropriate for purposes of the patented invention. The additives must be small enough to have a molecular size small enough to allow it to be absorbed into the swollen polymer. The secondary reference to Deck has been provided to teach that the corrosion inhibitors are well known additives in the art. These references document that there is nothing novel in their usage for their art-recognized purposes.

Perman et al '614 discloses that it is common in this art to employ plural fluid components when infusing additives into polymers utilizing supercritical fluids. See col. 2, line 28 through col. 3, line 11. There is nothing of an unobvious nature seen in such a limitation absent a clear showing of unexpected results attributable to such a variation.


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1. The dissolution of a known corrosion inhibitor of Deck in a conventional supercritical fluid of Berens et al to infuse that corrosion inhibitor into a polymer in the manner taught by Perman et al, US Patent No. 5508060 or Berens et al '752, would have been obvious to one of ordinary skill in the art at the time of applicant's invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kriellion A. Sanders whose telephone number is 571-272-1122. The examiner can normally be reached on Monday through Thursday 6:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kriellion A. Sanders
Primary Examiner
Art Unit 1714

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